Ecosystem Testing

Unit 1 Synergy – Science

**DISSOLVED OXYGEN (DO )**

***“***[Amount](http://www.businessdictionary.com/definition/amount.html) of oxygen dissolved (and hence available to sustain marine life) in a body of water such as a lake, river, or stream. DO is the most important [indicator](http://www.businessdictionary.com/definition/indicator.html) of the [health](http://www.businessdictionary.com/definition/health.html) of a water body and its [capacity](http://www.businessdictionary.com/definition/capacity.html) to support a balanced aquatic [ecosystem](http://www.businessdictionary.com/definition/ecosystem.html) of [plants](http://www.businessdictionary.com/definition/plant.html) and animals. [Wastewater](http://www.businessdictionary.com/definition/wastewater.html) [containing](http://www.businessdictionary.com/definition/container.html) [organic](http://www.businessdictionary.com/definition/organic.html) (oxygen [consuming](http://www.businessdictionary.com/definition/consumer.html)) [pollutants](http://www.businessdictionary.com/definition/pollutant.html) depletes the dissolved oxygen and may [lead](http://www.businessdictionary.com/definition/lead-Pb.html) to the [death](http://www.businessdictionary.com/definition/death.html) of marine organisms.

*USING THE DISSOLVED OXYGEN PROBE*

*Step 1.*

*The probe is sitting in distilled water which has a Dissolved Oxygen reading in Parts Per Thousand (ppt). Swirl the probe for a few seconds and record the reading in ppt’s.*

*Step 2*

*Place the probe in each of the provided samples and record the salinity. Only dip 3-4cm in sample as the handle is not waterproof. Swirl the probe gently. QUICKLY return probe to distilled water after each use.*

*Samples are*

1. *Seawater*
2. *Touch tank sample*
3. *Seahorse sample*
4. *Tap water*
5. *Dam/ pond sample – take probe outside and take a sample. Carry probe in the distilled water container.*

*Step 3*

*Return probe to distilled water beaker for next group*

*QUESTIONS*

1. *Use keynote or pages to create a graph of the results.*
2. *Which sample has the highest Dissolved Oxygen? Why is this?*
3. *Why do the ponds and fishtanks need dissolved oxygen?*
4. *What would to the happen to the reading if the probe was left out of the water for too long?*

*NOTE: The Data logger and probes are expensive so do not immerse them or use them in an inappropriate manner. Do not turn the data logger off between tests.*